

PLATES

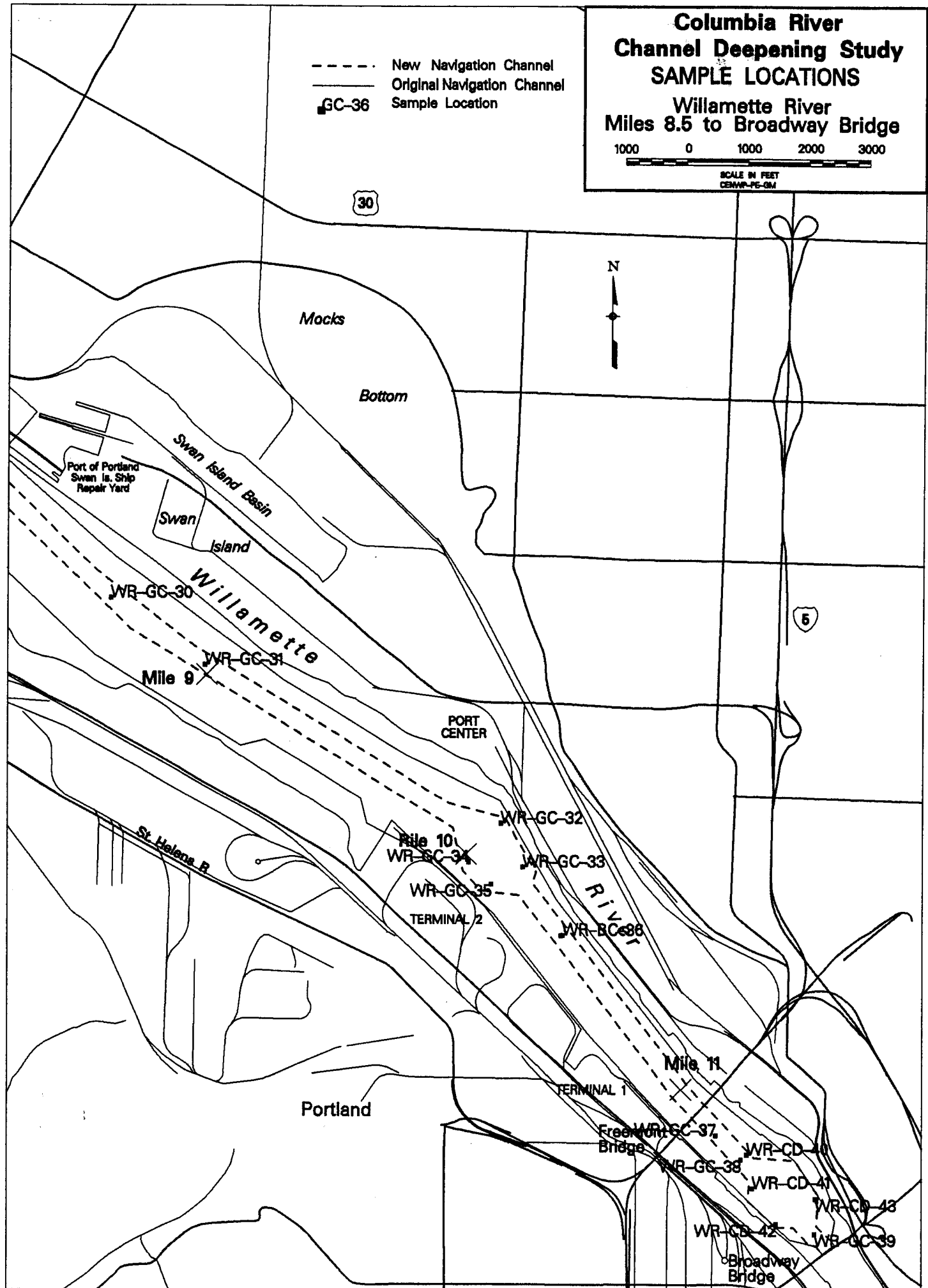
Columbia River Channel Deepening Study SAMPLE LOCATIONS

**Willamette River
Miles 8.5 to Broadway Bridge**

1000 0 1000 2000 3000

SCALE IN FEET
CENWP-PS-6M

--- New Navigation Channel
— Original Navigation Channel
GC-36 Sample Location



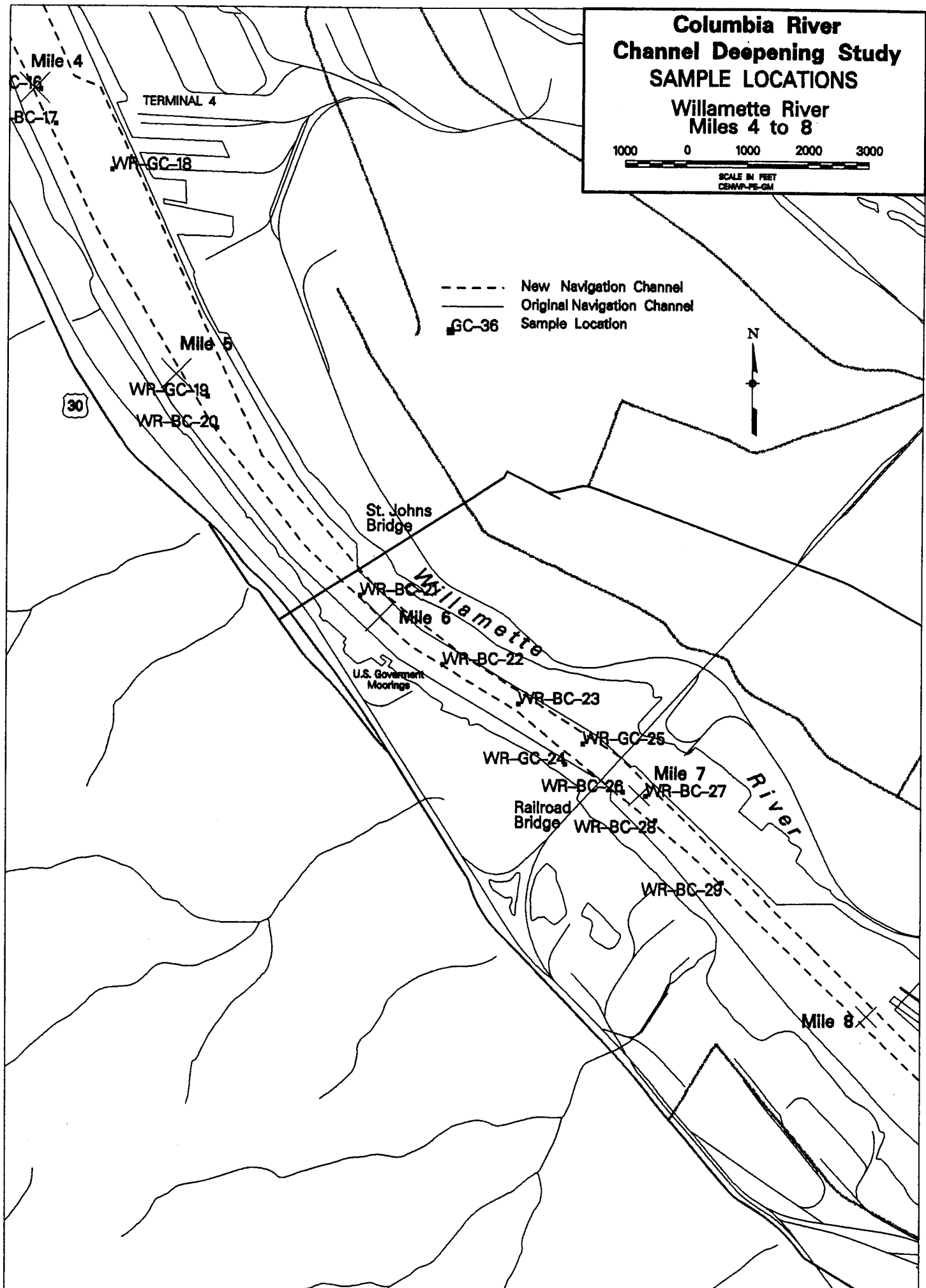
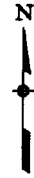
Columbia River Channel Deepening Study SAMPLE LOCATIONS

**Willamette River
Miles 4 to 8**

1000 0 1000 2000 3000

SCALE IN FEET
CENR-PE-GM

--- New Navigation Channel
— Original Navigation Channel
■ GC-36 Sample Location

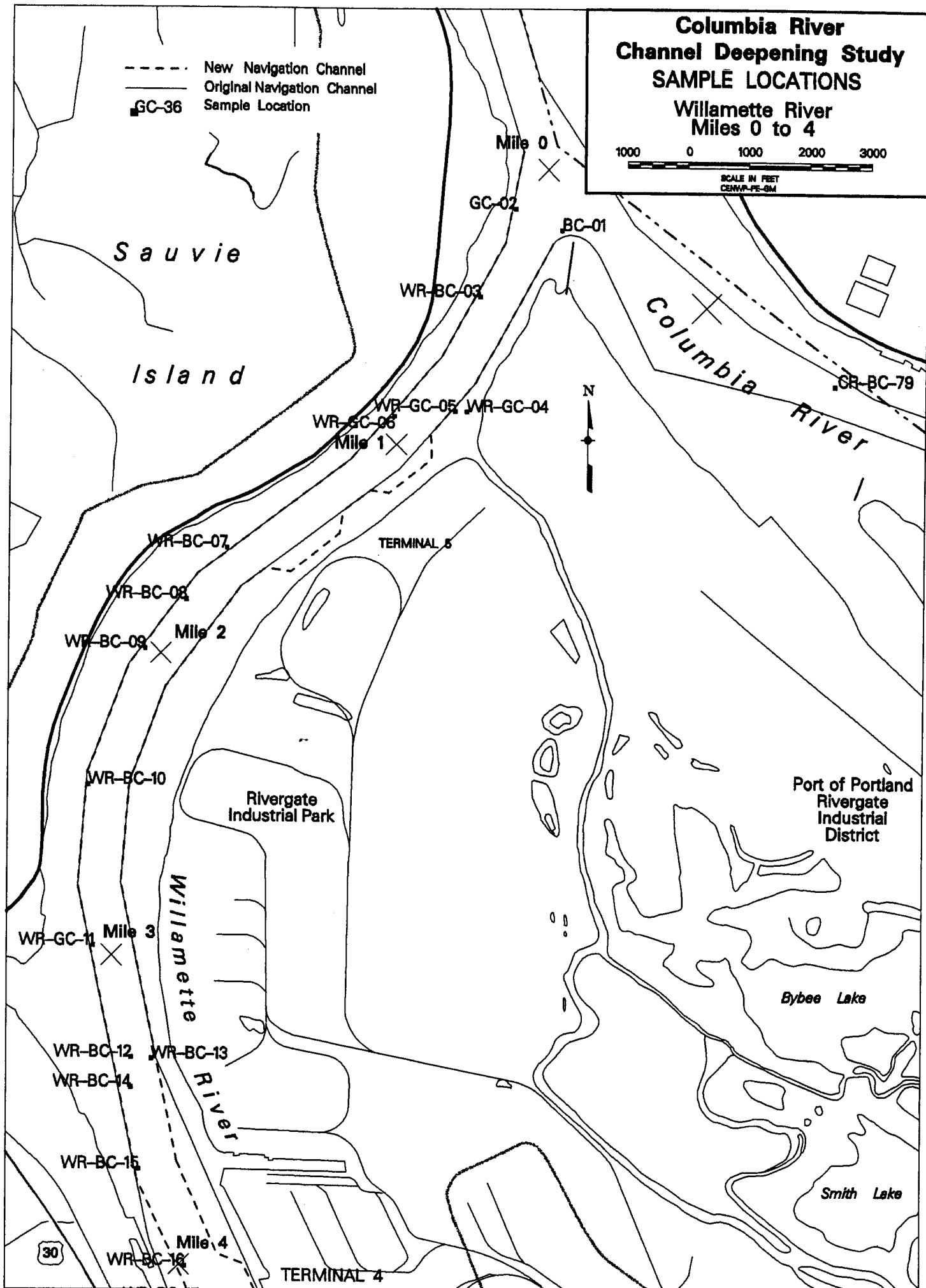


Columbia River Channel Deepening Study SAMPLE LOCATIONS

Willamette River
Miles 0 to 4

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETER



**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

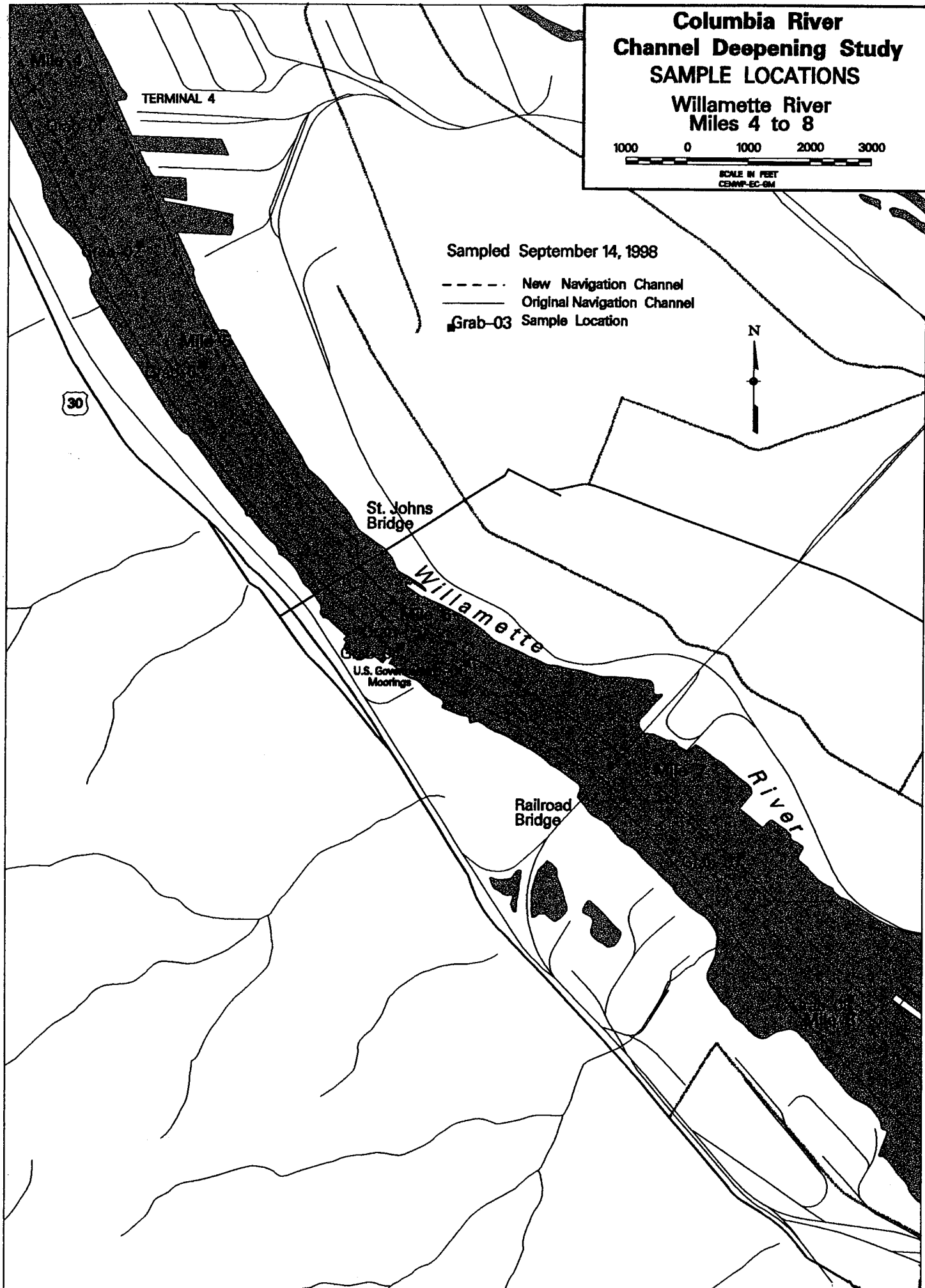
**Willamette River
Miles 4 to 8**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETER

Sampled September 14, 1998

----- New Navigation Channel
——— Original Navigation Channel
■ Grab-03 Sample Location



Sampled September 14, 1998

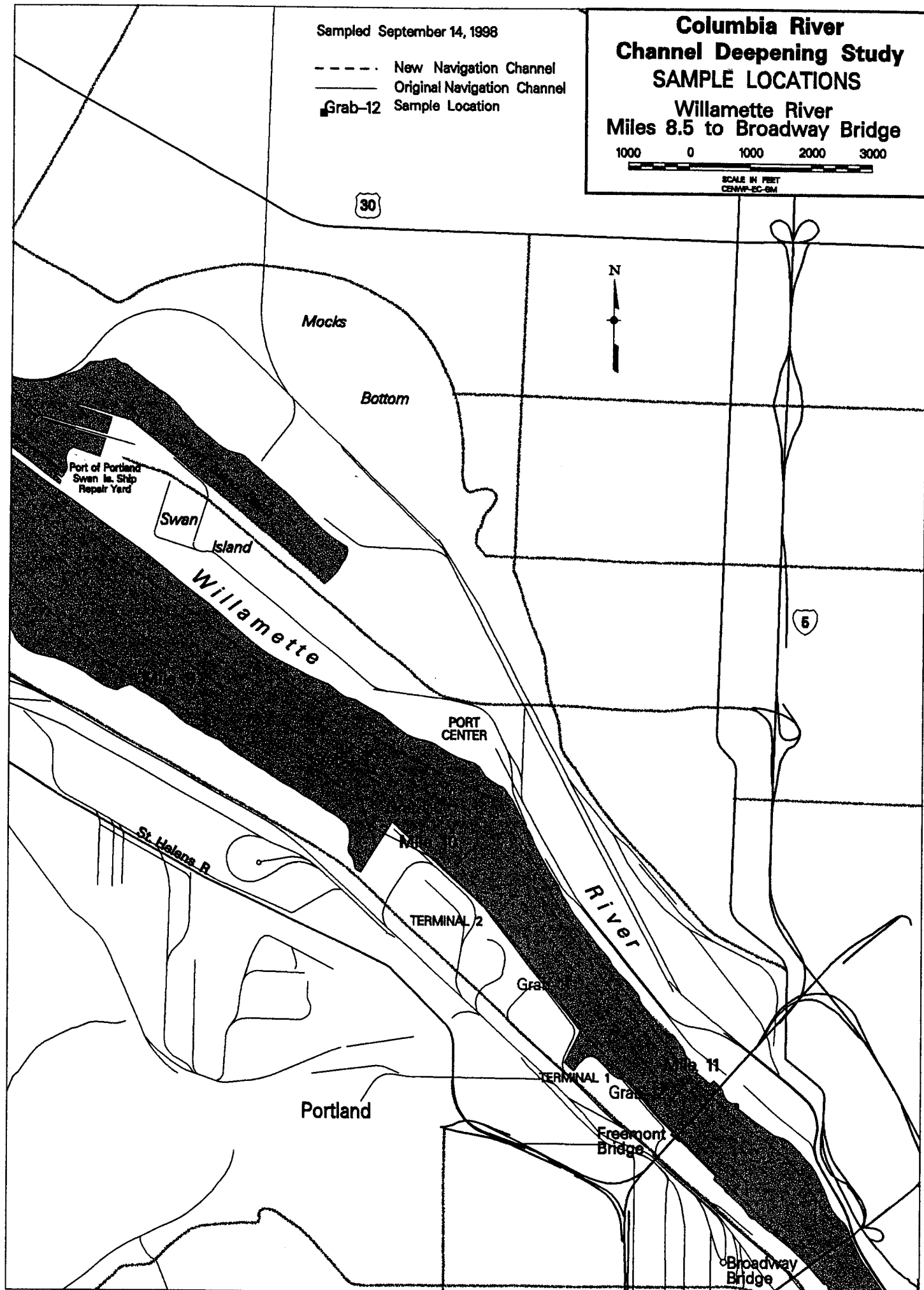
- New Navigation Channel
— Original Navigation Channel
■ Grab-12 Sample Location

Columbia River Channel Deepening Study SAMPLE LOCATIONS

Willamette River
Miles 8.5 to Broadway Bridge

1000 0 1000 2000 3000

SCALE IN FEET
CENWP-EC-9M



**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 103 to 106.5**

1000 0 1000 2000 3000

SCALE IN FEET
DSWP-PS-684

Navigation Channel
Sample Location

GC-36

WASHINGTON



CR-BC-80

CR-BC-82

CR-BC-81

CR-BC-83

Mile 104

CR-BC-84

CR-BC-85

Vancouver

Mile 105

CR-BC-86

CR-BC-87

Mile 106

CR-BC-88

Oregon Slough

Hayden

Mile 2

Island

(North Portland Harbor)

OREGON

Mile 3

Smith Lake

Columbia River Channel Deepening Study SAMPLE LOCATIONS

Columbia River
Miles 99 - 103

1000 0 1000 2000 3000

SCALE IN FEET
CONTR-75-QM

WASHINGTON

Sauvie

Island

Vancouver
Lake



- New Navigation Channel
- Original Navigation Channel
- GC-36 Sample Location

Mile 99

CR-BC-75 CR-BC-74
CR-BC-73

Mile 100

CR-BC-76

CR-BC-77

Mile 101

Mile 0

GC-02

BC-01

CR-BC-78

WR-BC-03

Mile 102

CR-BC-79

Mile 103

WR-GC-05 WR-GC-04
WR-GC-06

Mile 1

WR-BC-07

WR-BC-08

C-09 Mile 2

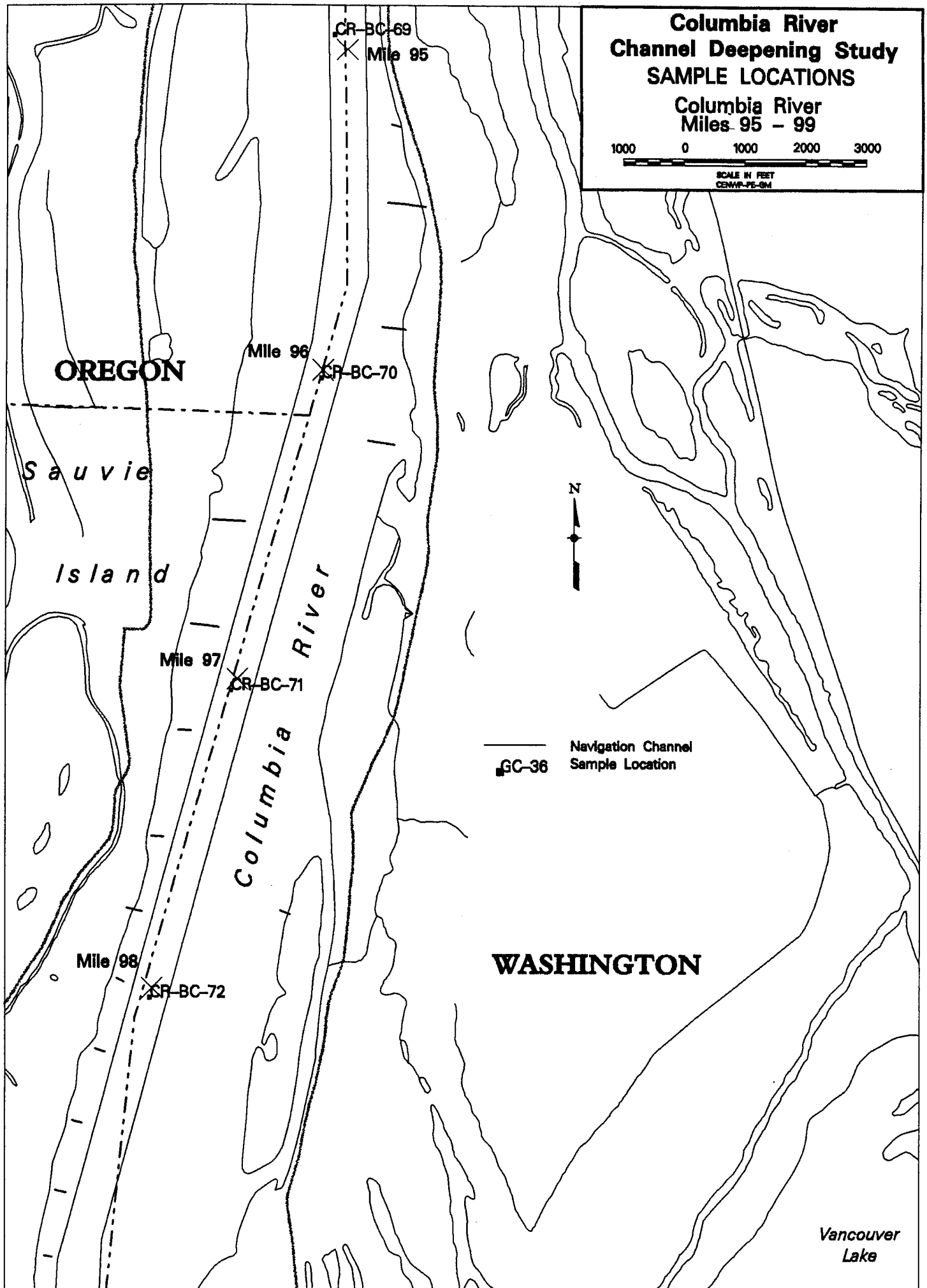
OREGON

Oregon
Slough

**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**
Columbia River
Miles 95 - 99

1000 0 1000 2000 3000

SCALE IN FEET
CENWP-75-04

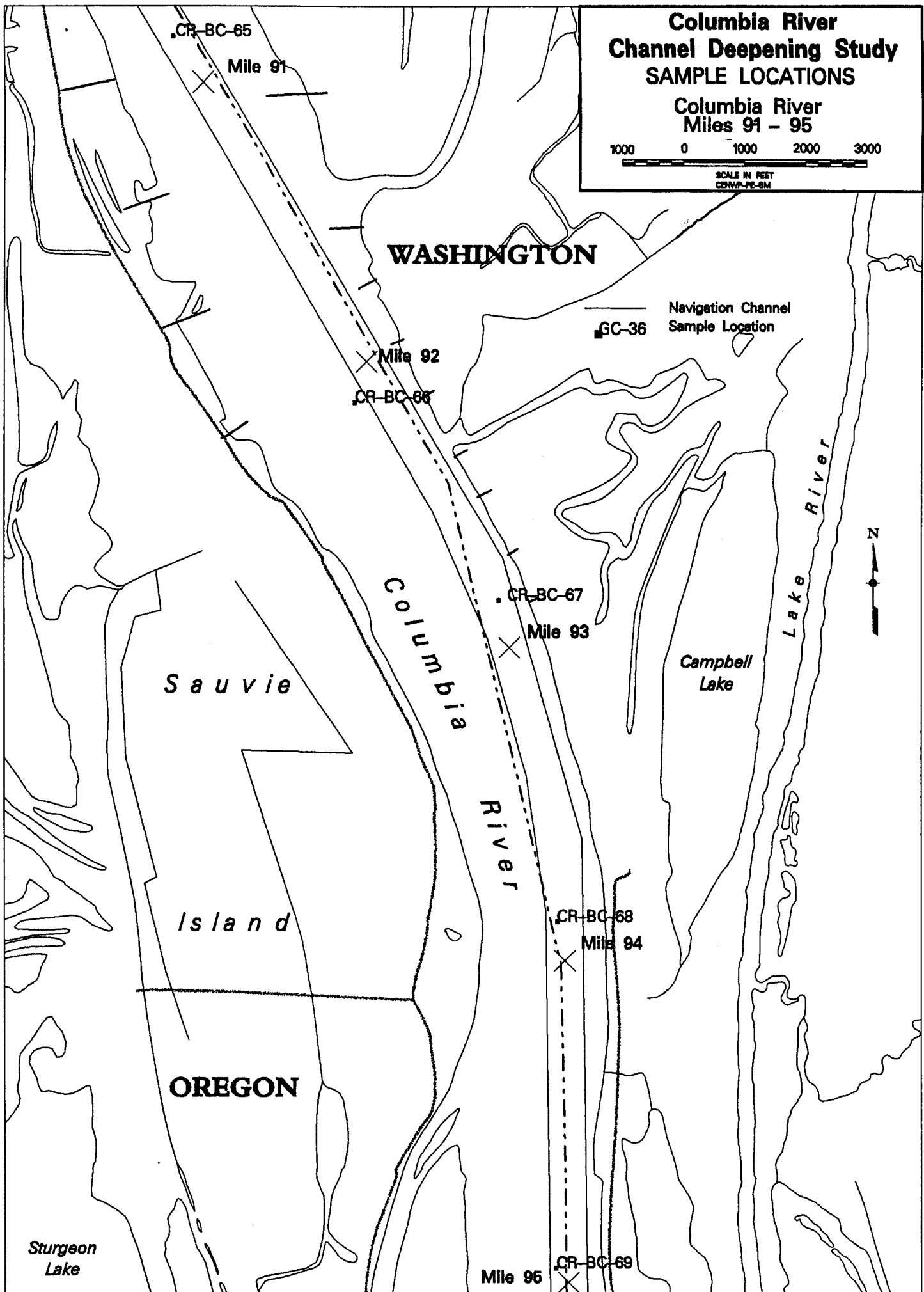


**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 91 - 95**

1000 0 1000 2000 3000

SCALE IN FEET
COWP-PE-8M



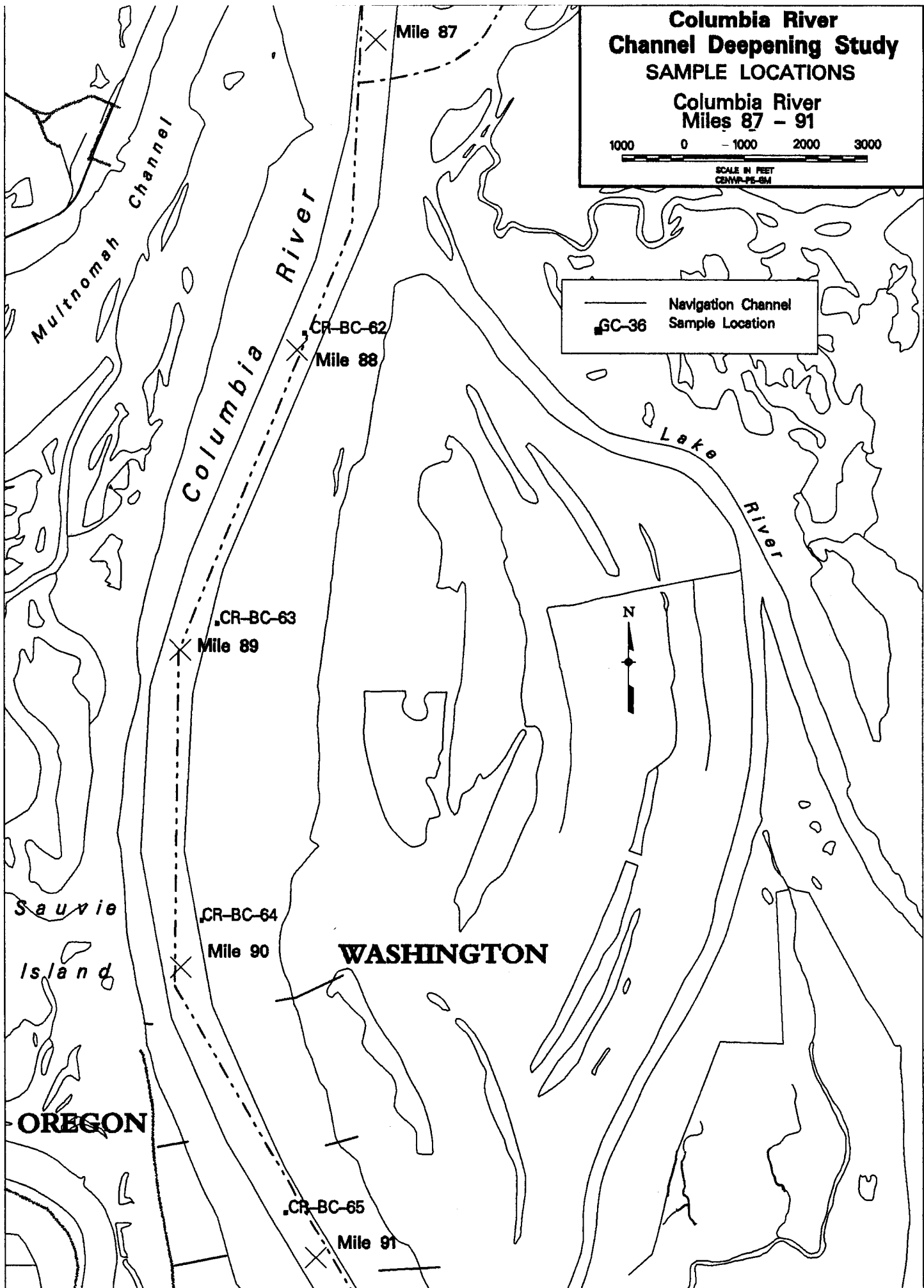
**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 87 - 91**

1000 0 - 1000 2000 3000

SCALE IN FEET
CENTIMETERS

Navigation Channel
GC-36 Sample Location



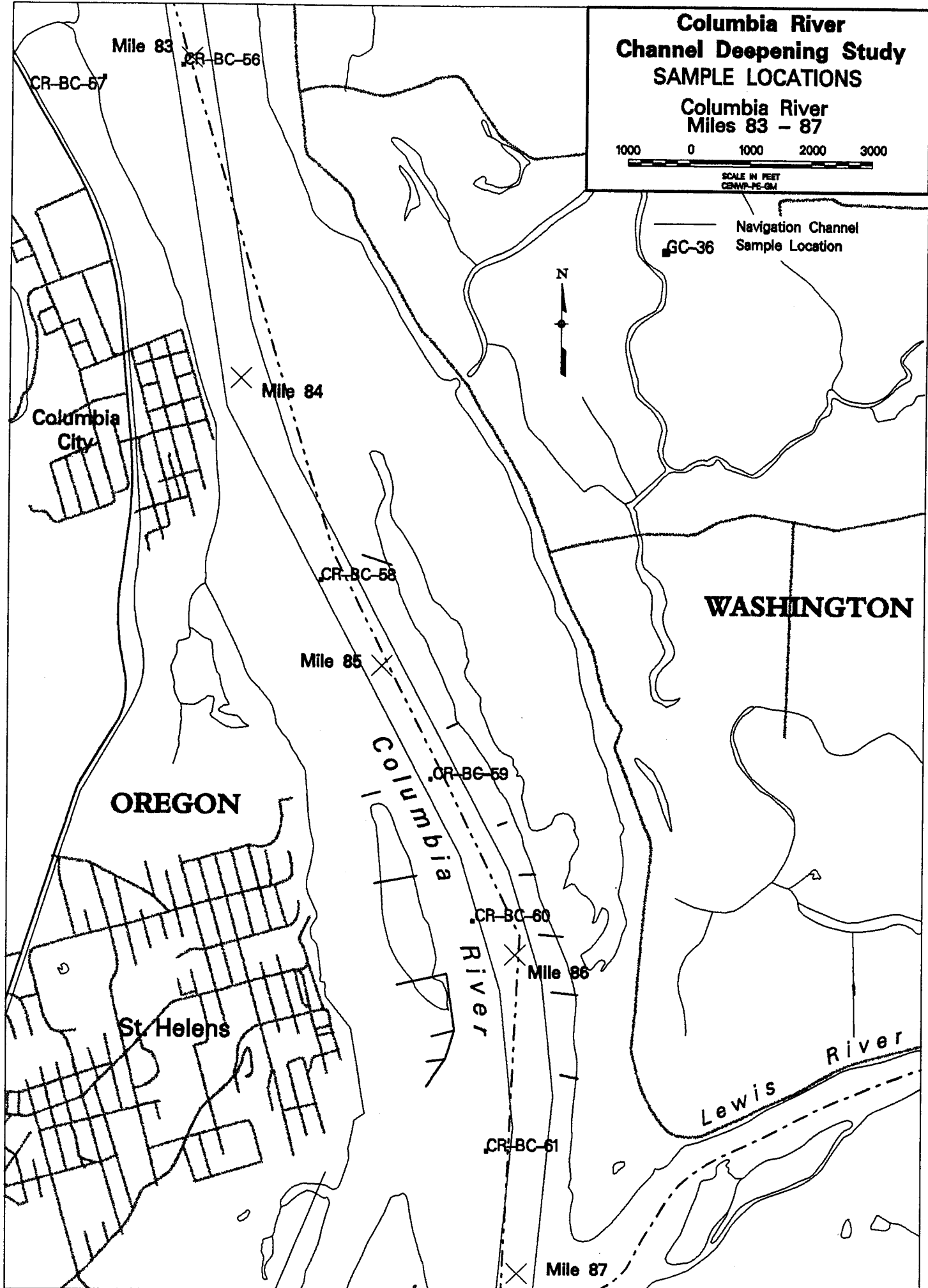
**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 83 - 87**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETERS

Navigation Channel
Sample Location
GC-36



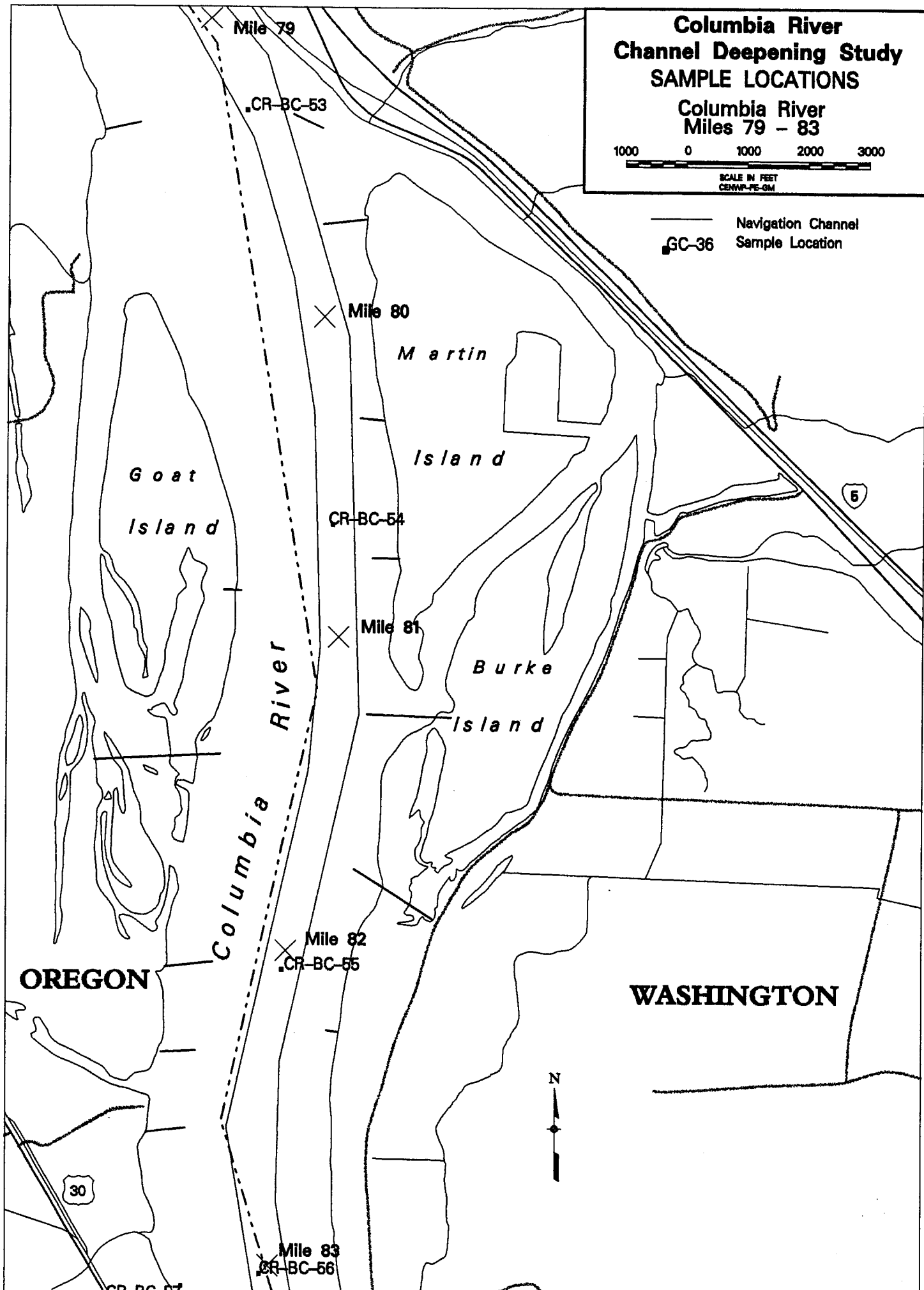
**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 79 - 83**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETER

Navigation Channel
GC-36 Sample Location



**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 74.5 - 79**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETER-50M

Kalama



Navigation Channel
Sample Location

GC-36

Sandy

Island

Mile 76

CR-BC-51

CR-BC-52

Mile 77

Mile 78

WASHINGTON

OREGON

Columbia River

Mile 79

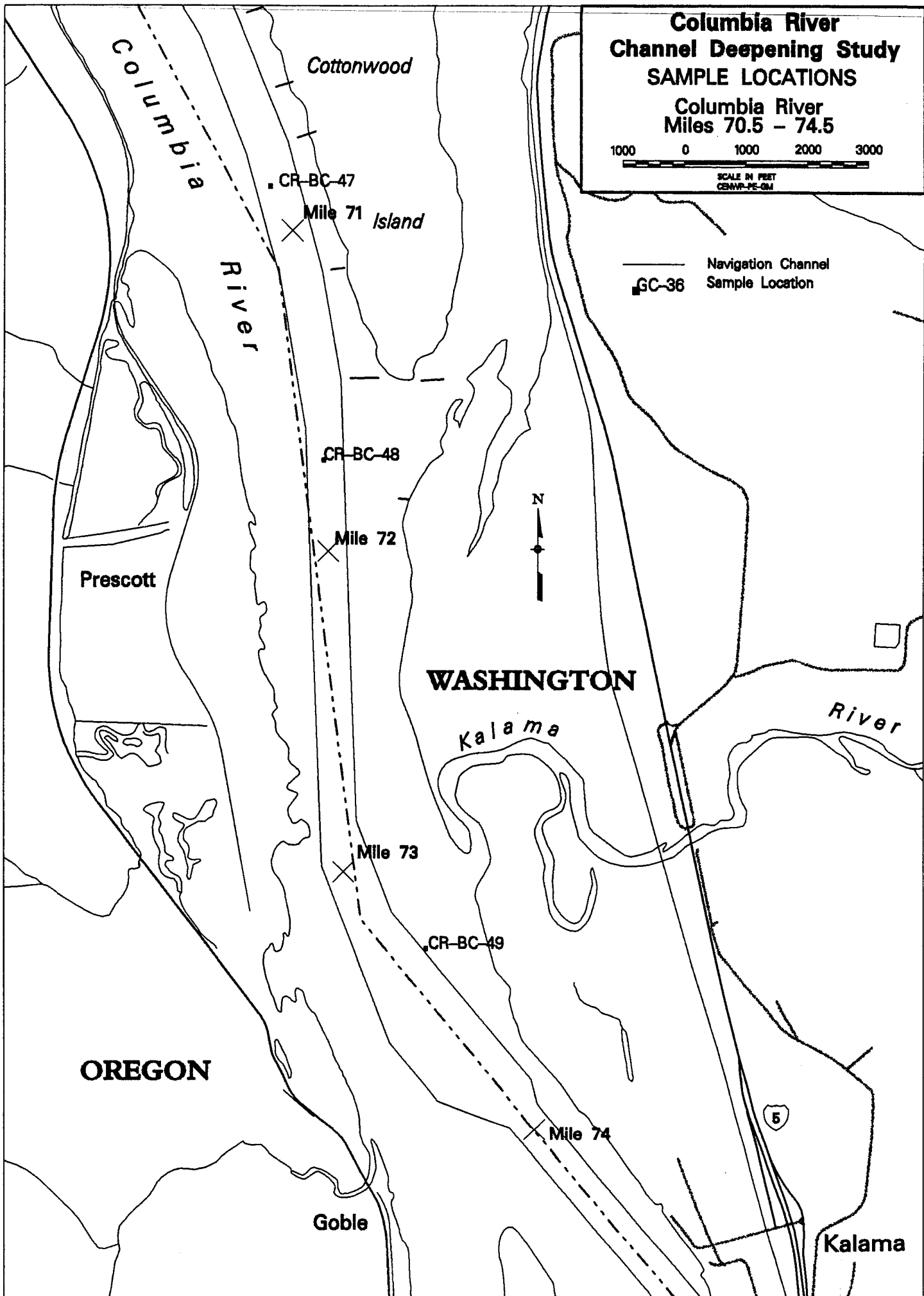
**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 70.5 - 74.5**



Navigation Channel
Sample Location

GC-36

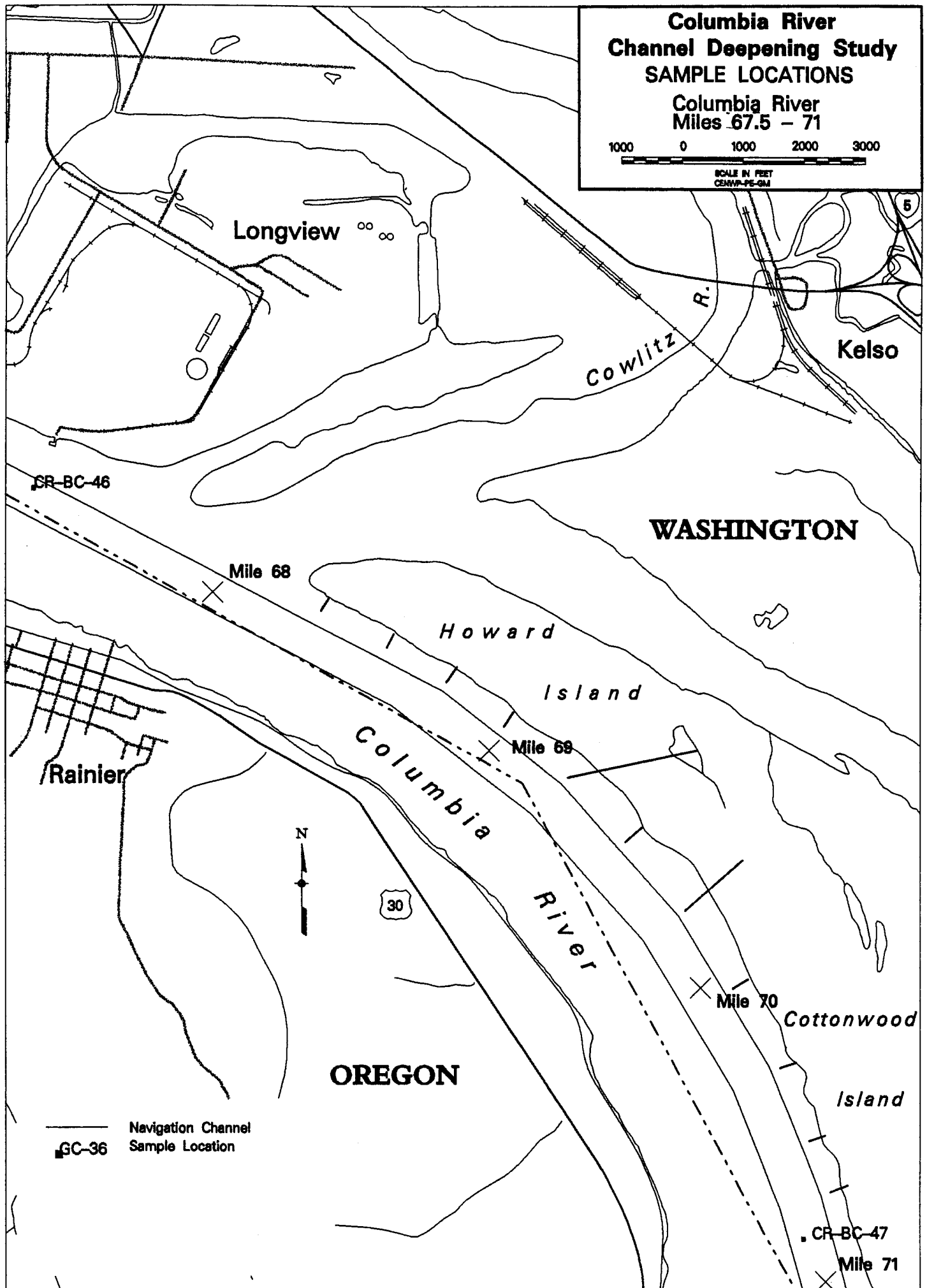


**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 67.5 - 71**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETERS

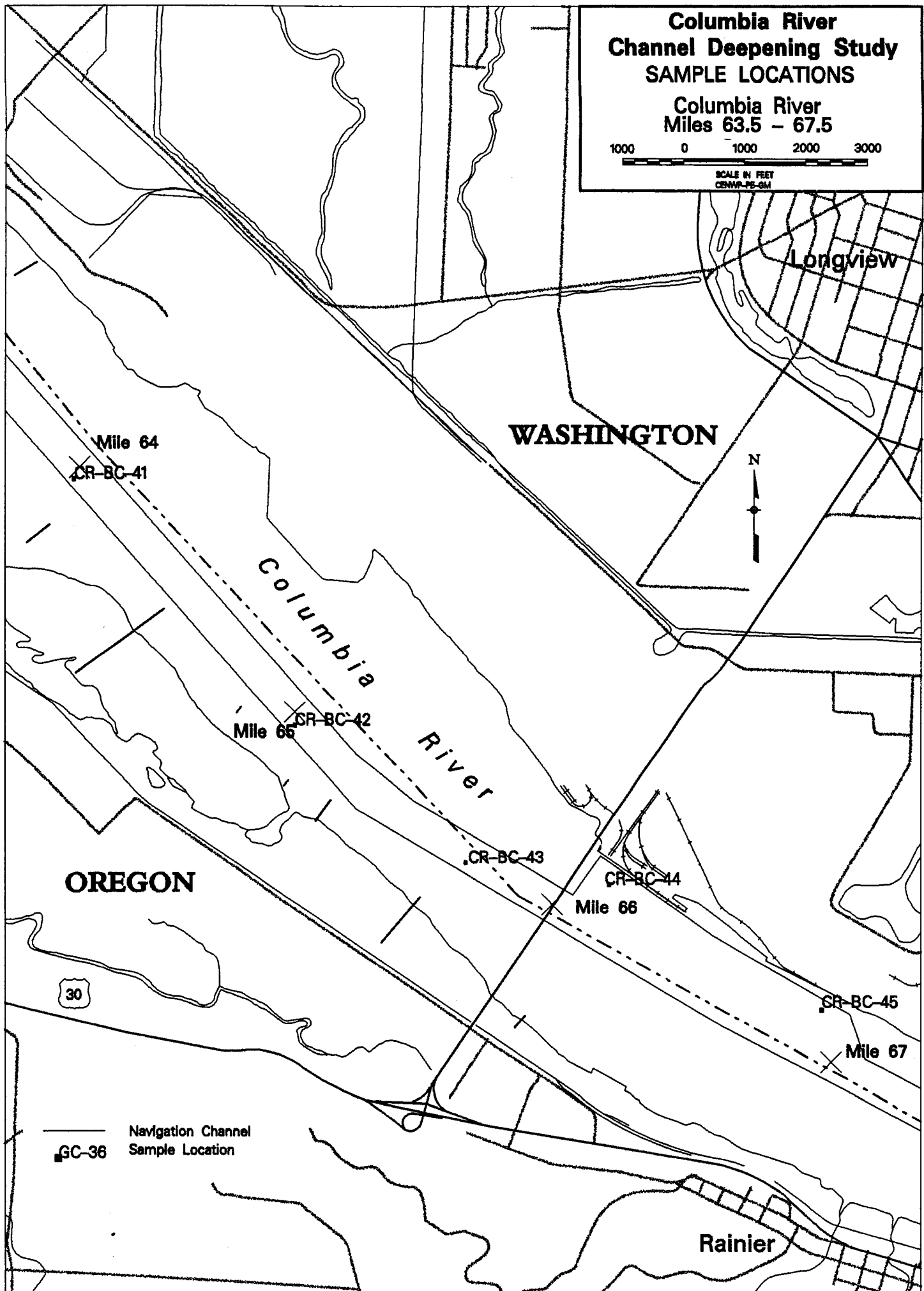


**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 63.5 - 67.5**

1000 0 1000 2000 3000

SCALE IN FEET
CENWP-PS-6M



**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 60.5 - 63.5**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETERS

WASHINGTON

N

Navigation Channel
GC-36 Sample Location

*Fisher
Is.*

BC-38

Mile 61

Walker Is.

CR-BC-39

Mile 62

*Columbia
River*

Mile 63/
CR-BC-40

Lord

Island

OREGON

**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

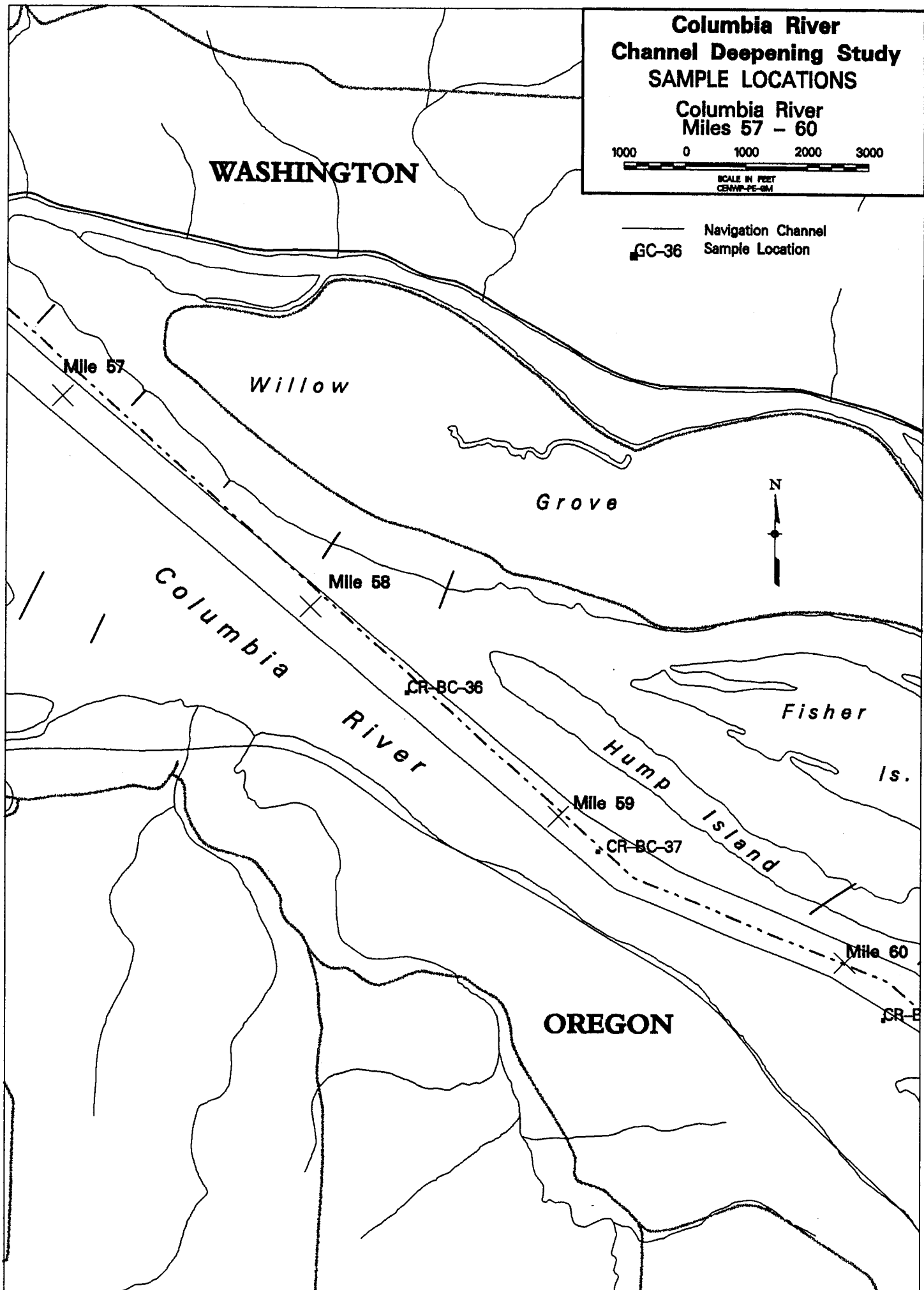
**Columbia River
Miles 57 - 60**

1000 0 1000 2000 3000

SCALE IN FEET
CENWP-PS-841

WASHINGTON

Navigation Channel
GC-36 Sample Location



**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

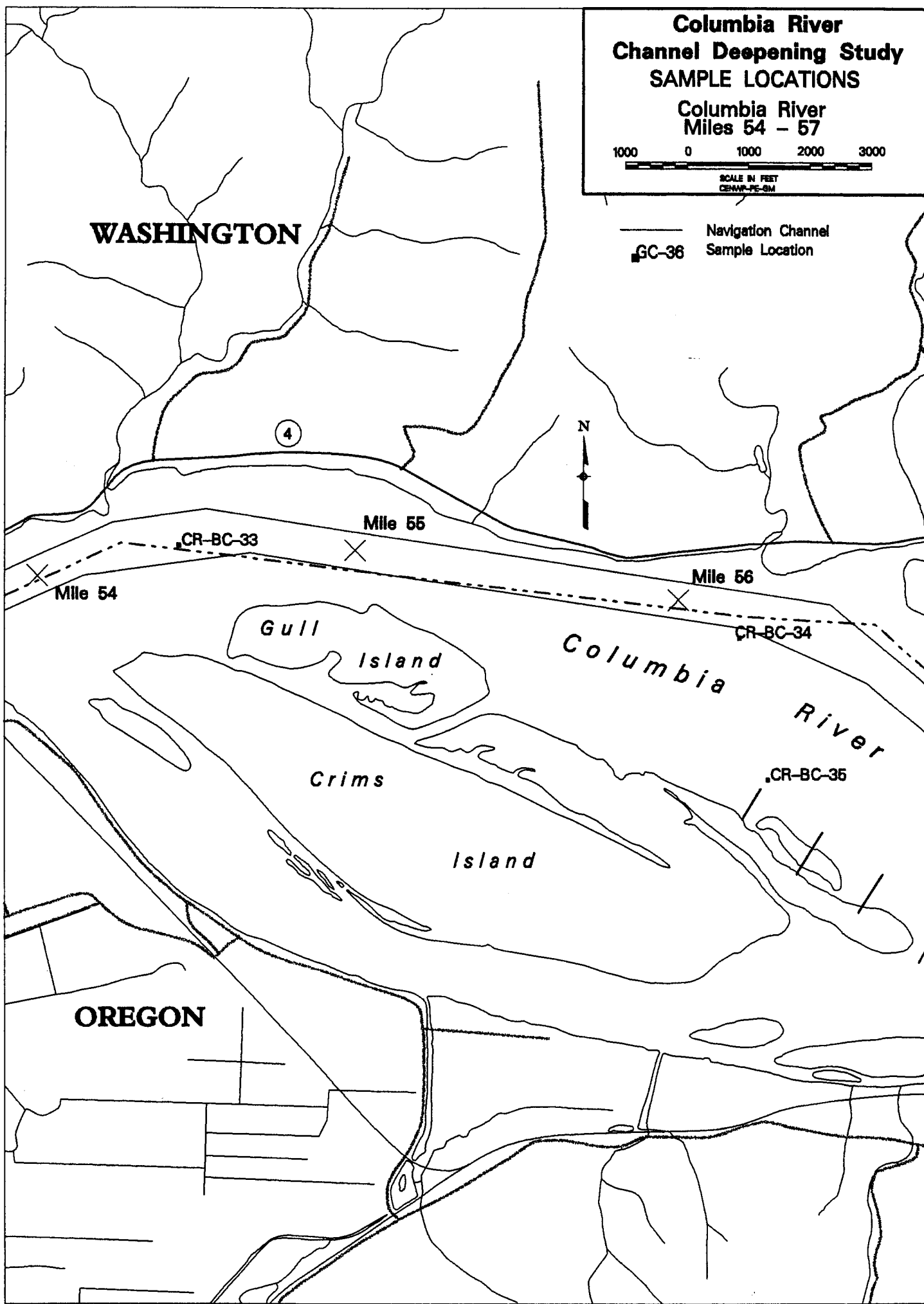
**Columbia River
Miles 54 - 57**

1000 0 1000 2000 3000

SCALE IN FEET
CENAP-PE-8M

WASHINGTON

Navigation Channel
GC-36 Sample Location



**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 51 - 54**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETER-SM

WASHINGTON

Navigation Channel
Sample Location
GC-36



4

Mile 53

Mile 52

CR-DC-32

Mile 51

Columbia River

OREGON

**Columbia River
Channel Deepening Study**

SAMPLE LOCATIONS

**Columbia River
Miles 47.5 - 50.5**

1000 0 1000 2000 3000

SCALE IN FEET
CEWAP-PS-OM

WASHINGTON

N

Navigation Channel
GC-36 Sample Location

**Eagle
Cliff**

Flandersville

Waterford

4

Mile 50

Columbia River

Mile 49

CR-BC-31

Mile 48

Wallace

Island

Wallace Slough

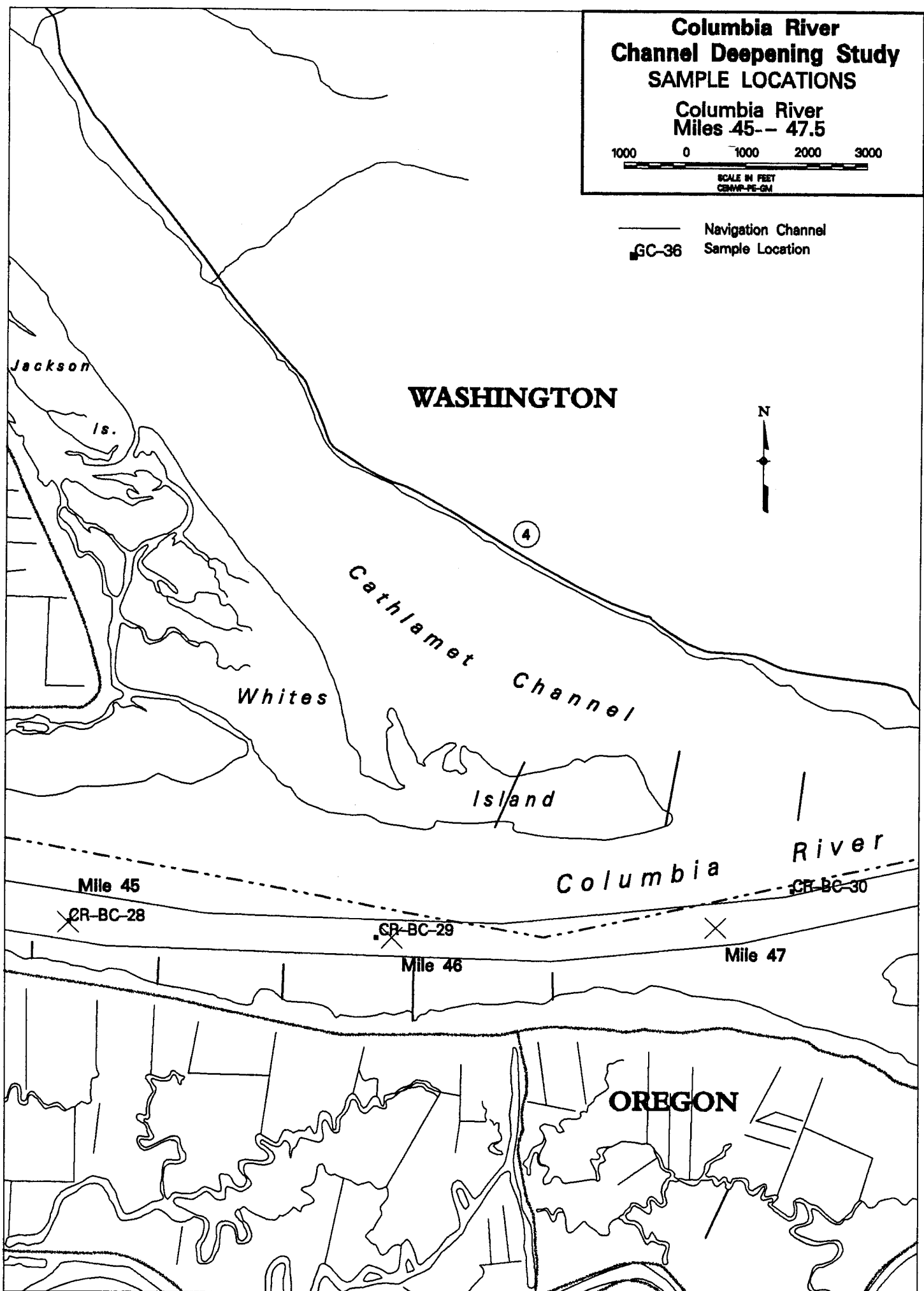
OREGON

**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 45-- 47.5**



Navigation Channel
GC-36 Sample Location

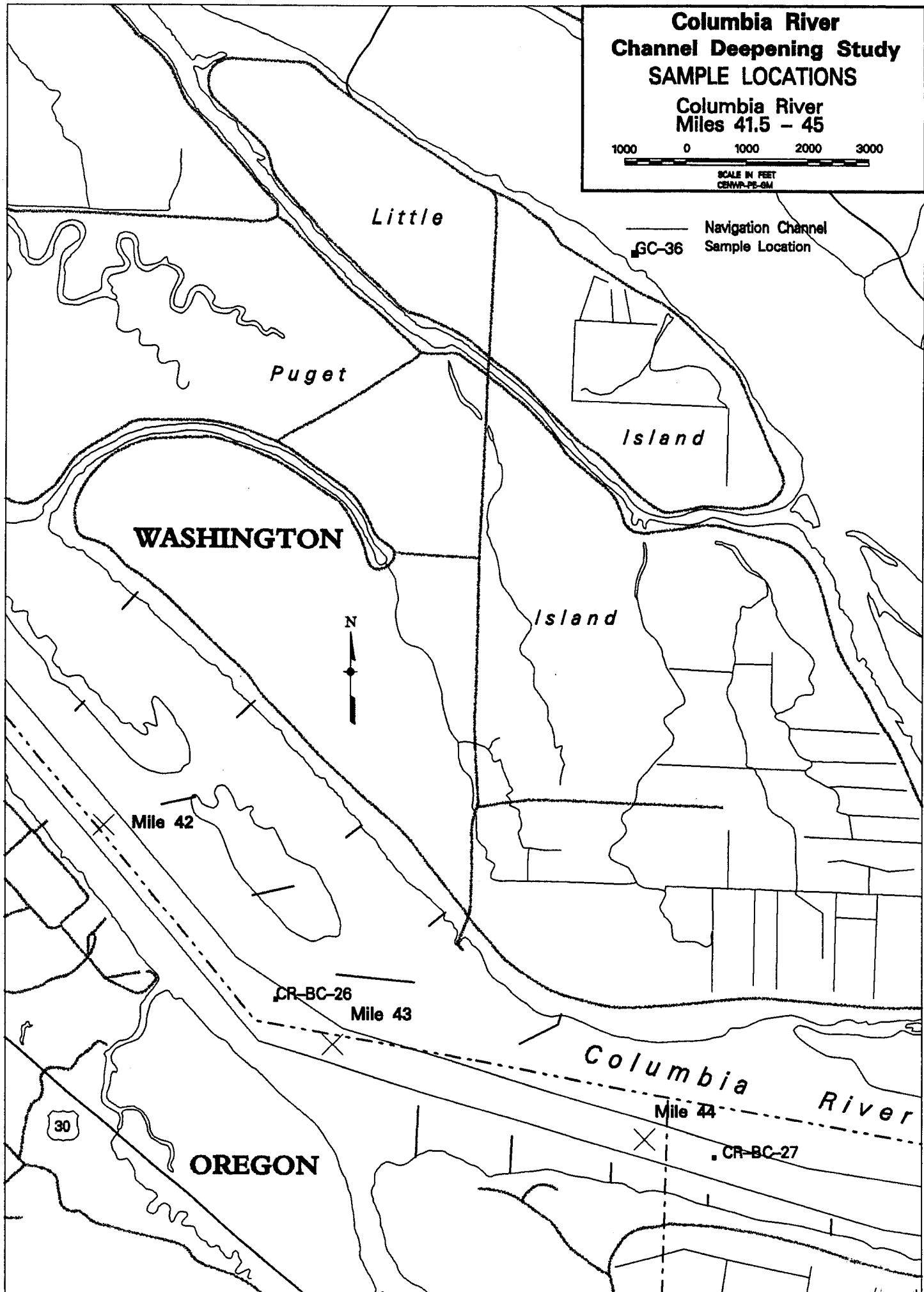


**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 41.5 - 45**

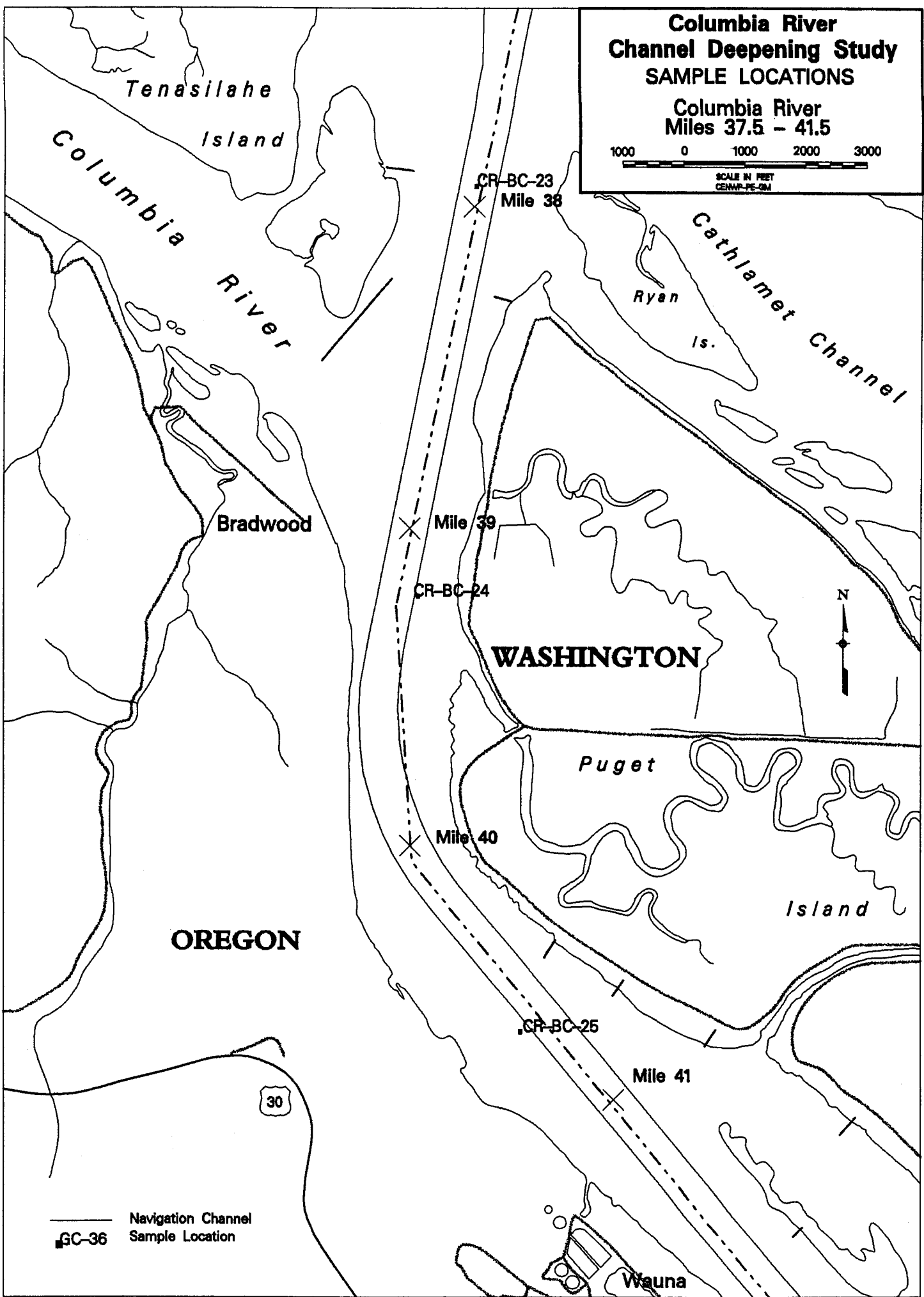
1000 0 1000 2000 3000

SCALE IN FEET
CENTR-PS-6M



**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 37.5 - 41.5**

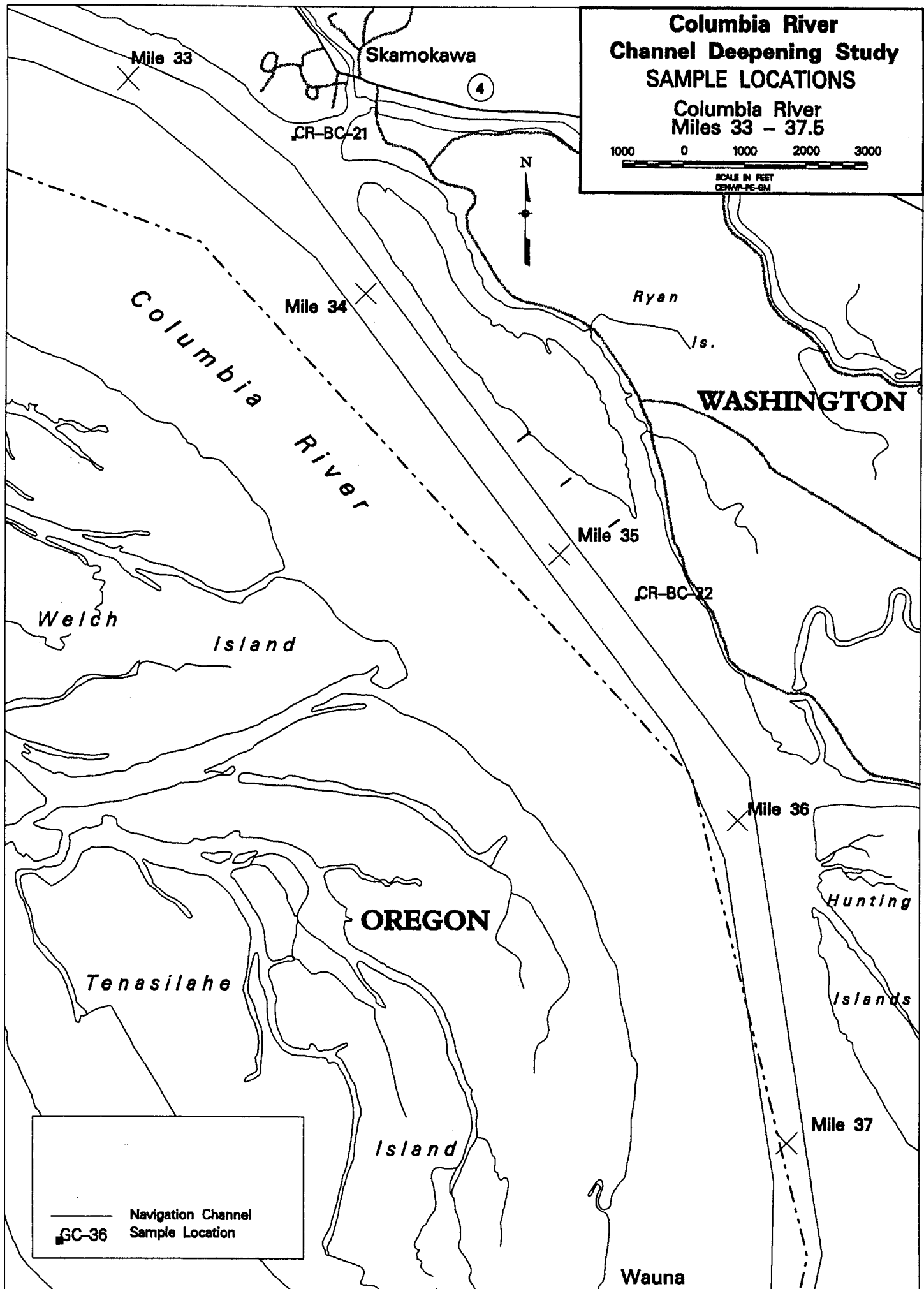


**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 33 - 37.5**

1000 0 1000 2000 3000

SCALE IN FEET
CERW-PS-GM



GC-36

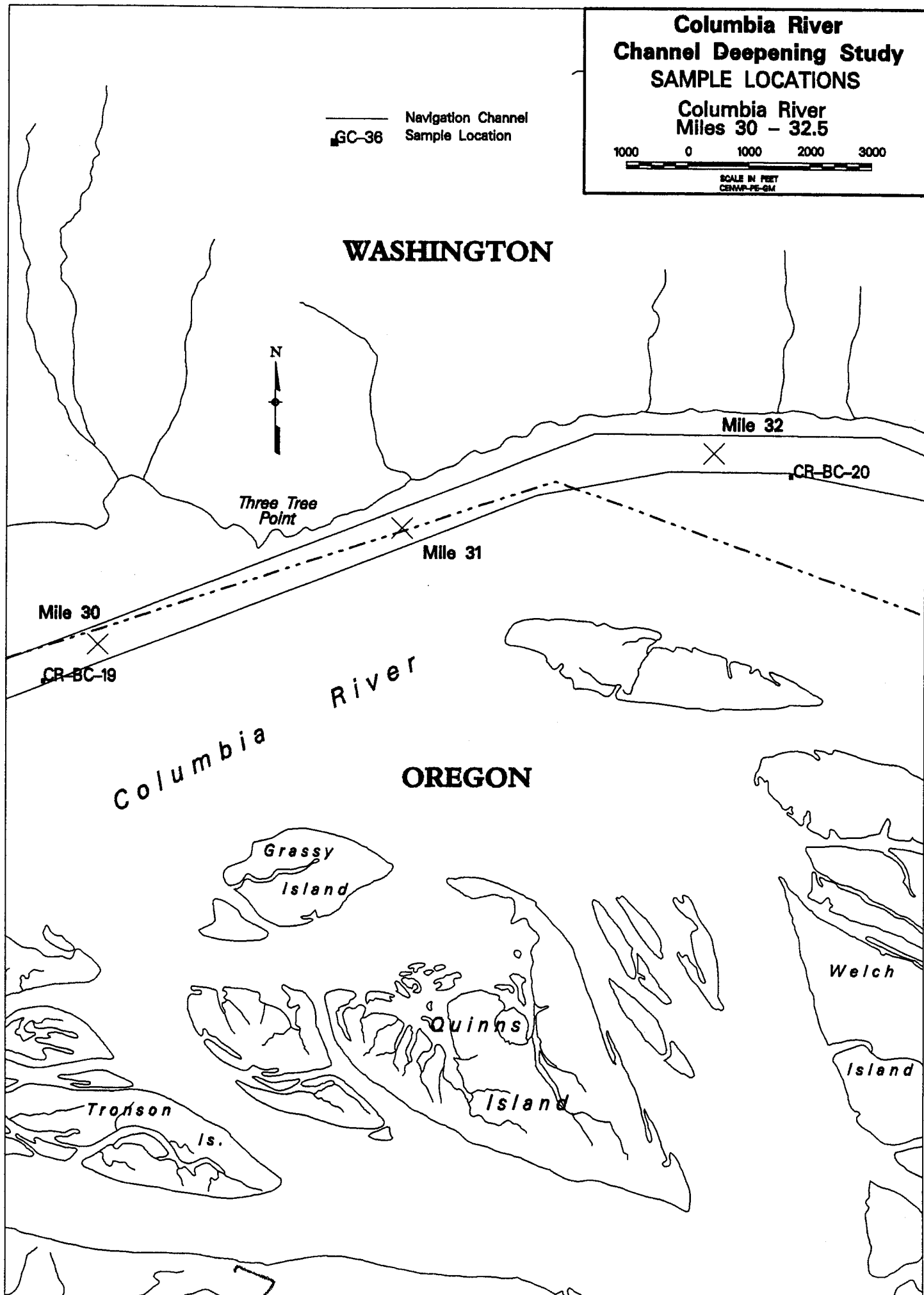
Navigation Channel
Sample Location

**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 30 - 32.5**



Navigation Channel
GC-36 Sample Location



**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 27 - 30**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETER

Navigation Channel
Sample Location

GC-36

WASHINGTON

N

Jim Crow
Point

Mile 27



CR-BC-17



CR-BC-18



Mile 29

Mile 28

Jim Crow Sands

Columbia River

Grassy

Island

OREGON

Quinns

Island

Aldrich
Point

**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 24.5 - 27**

1000 0 1000 2000 3000

SCALE IN FEET
CENTRA-PE-84J

— Navigation Channel
GC-36 Sample Location

WASHINGTON



Elliot Point

CR-BC-16

Mile 25

Mile 26

Mile 27

Columbia River

Miller Sands

Jim Crow Sands

OREGON

Snag Is.

**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 21.5 - 24**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETERS

Navigation Channel
GC-36 Sample Location

*Pigeon
Bluff*

*Harrington
Point*

WASHINGTON

N

Rice Island

Mile 22

CR-BC-14

Mile 23

CR-BC-15
Mile 24

*Miller
Sands*

*Columbia
River*

OREGON

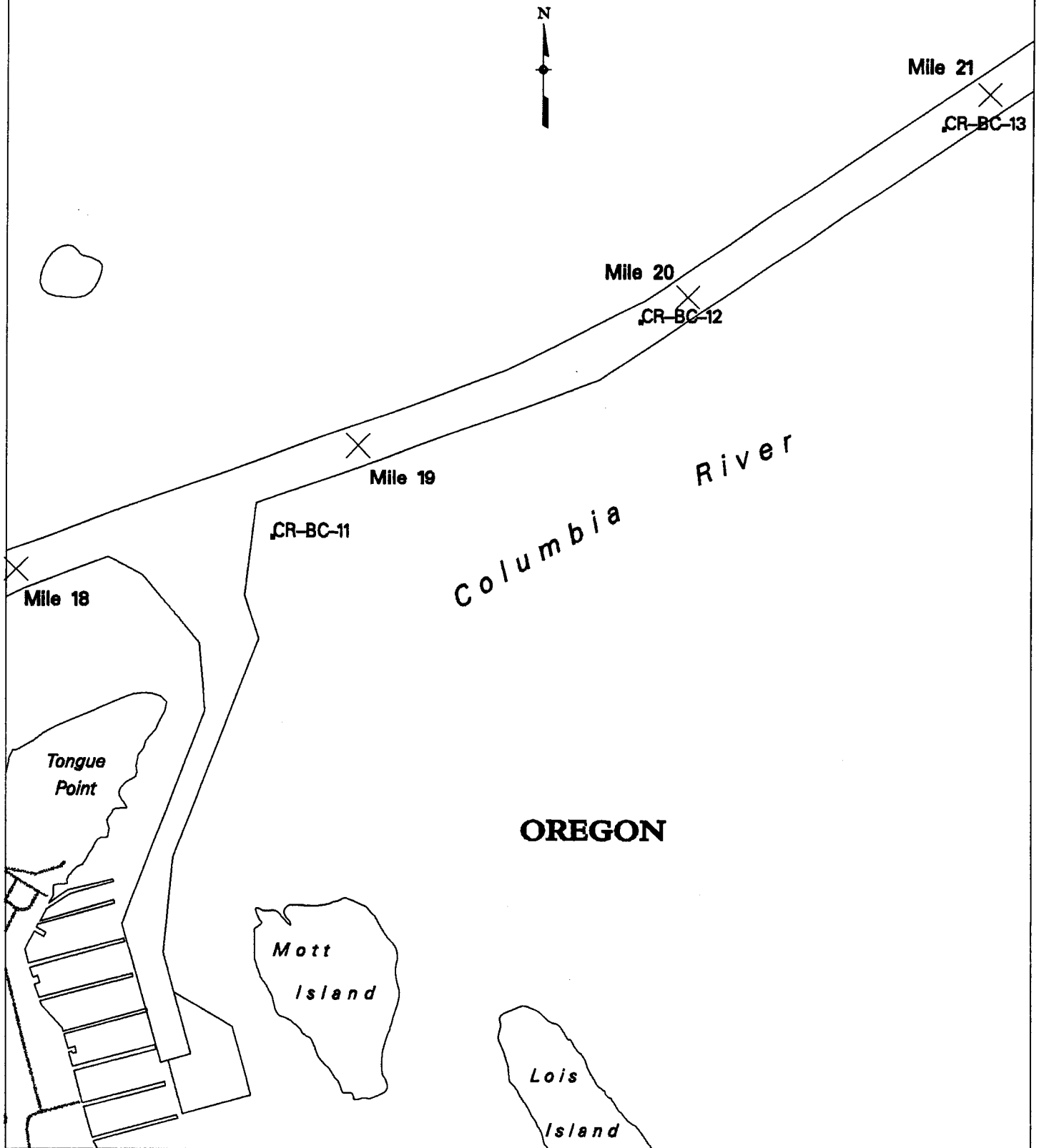
**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 18 - 21**

1000 0 1000 2000 3000

SCALE IN FEET
CENWP-PS-GM

Navigation Channel
GC-36 Sample Location



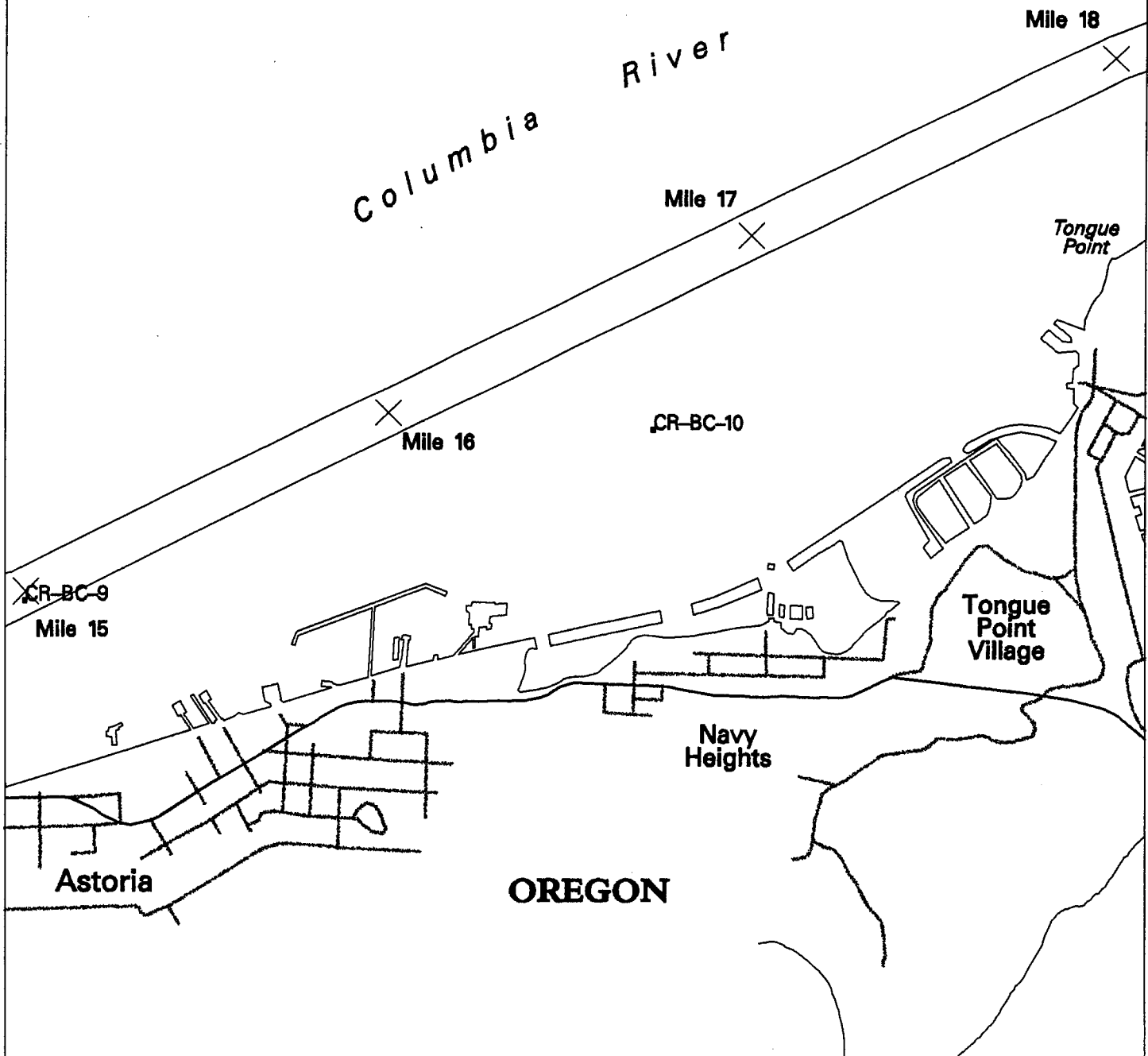
**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 15 - 18**

1000 0 1000 2000 3000

SCALE IN FEET
CEWA-PS-04

Navigation Channel
GC-36 Sample Location



**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 12 - 15**

1000 0 1000 2000 3000

SCALE IN FEET
CENW-PE-8M

Navigation Channel
Sample Location

GC-36

101

N

Columbia River

Mile 15

Mile 14

Mile 13

CR-BC-8

CR-BC-7

Smith Point

Astoria

OREGON

26

101

Dagget Point

**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 9 - 12**

1000 0 1000 2000 3000

SCALE IN FEET
CENTIMETER

Navigation Channel
Sample Location

GC-36

N

Mile 9

CR-BC-4

Desdemona

Mile 10

Columbia River

Sands

Tansy Point

Mile 11

Mile 12

CR-BC-5

CR-BC-6

Smith Point

Youngs

Bay

OREGON

Skipanon Waterway

Warrenton

26 101

**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 5 - 9**

1000 0 1000 2000 3000

SCALE IN FEET
CBMP-PE-GM

Navigation Channel
Sample Location

GC-36

N



Columbia River

Mile 6

CR-BC-1

CR-BC-2

Mile 7

CR-BC-3

Trestle

Bay

Point
Adams

Mile 8

OREGON

Hammond

Mile 9

**Columbia River
Channel Deepening Study
SAMPLE LOCATIONS**

**Columbia River
Miles 2 - 5**



SCALE IN FEET
CENWP-PE-GM



WASHINGTON

Cape Disappointment

Sand

Island

Baker

Bay

Jetty "A"

Columbia River

Mile 2

Mile 3

Mile 4

Mile 5

**AM
REA**

OREGON

Navigation Channel
GC-36 Sample Location

South Jetty

Clatsop Spit